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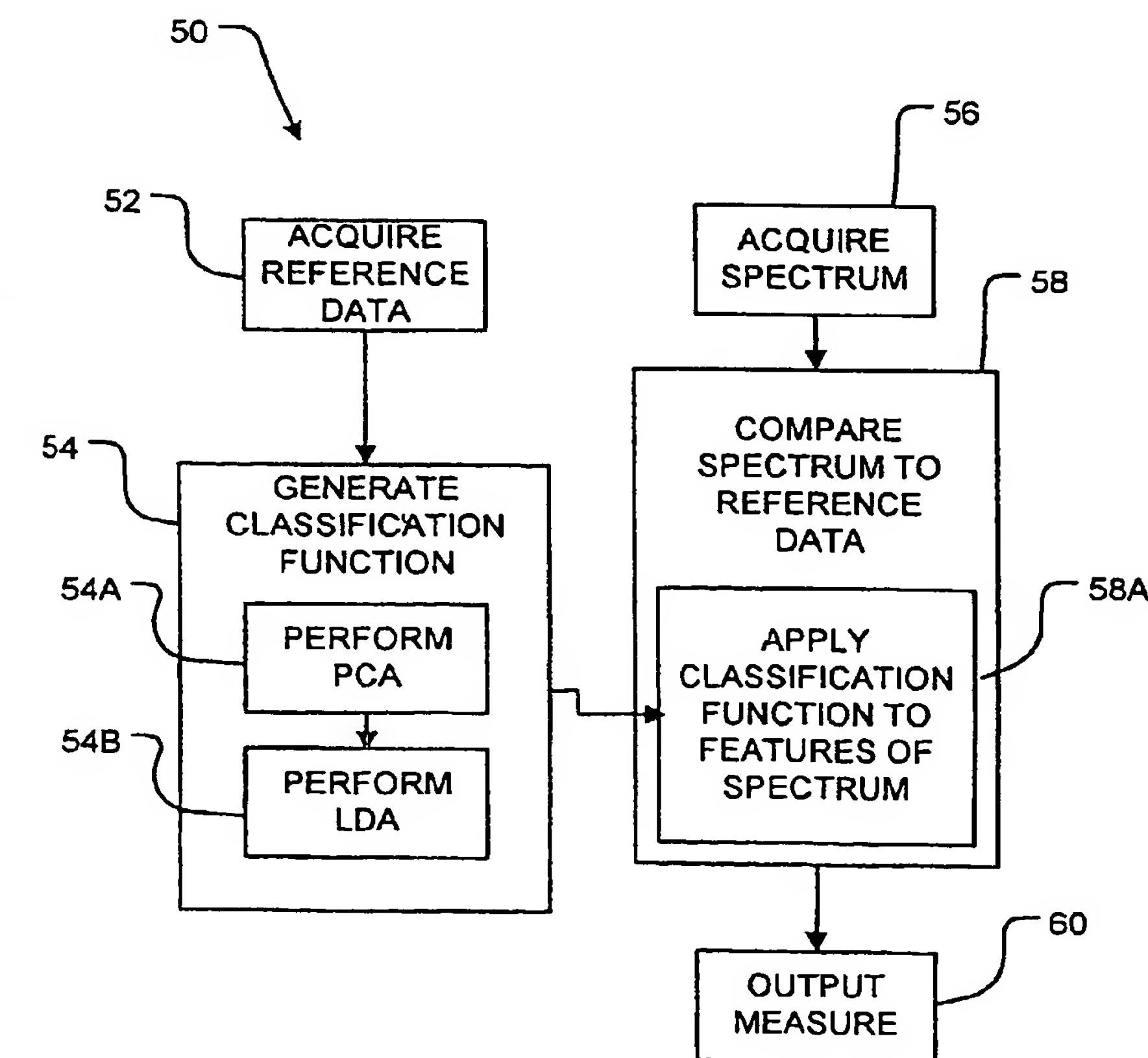
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(54) Title: MULTIMODAL DETECTION OF TISSUE ABNORMALITIES BASED ON RAMAN AND BACKGROUND FLUORESCENCE SPECTROSCOPY



(57) Abstract: Methods and apparatus for classifying tissue use features of Raman spectra and background fluorescent spectra. The spectra may be acquired in the near-infrared wavelengths. Principal component analysis and linear discriminant analysis of reference spectra may be used to obtain a classification function that accepts features of the Raman and background fluorescence spectra for test tissue and yields an indication as to the likelihood that the test tissue is abnormal. The methods and apparatus may be applied to screening for skin cancers or other diseases.

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